

ABSTRACT

The present invention relates to an alkali metal generating agent and others for formation of a photo-cathode or a secondary-electron emitting surface capable of stably generating an alkali metal. The alkali metal generating agent is used in formation of a photo-cathode for emitting a photoelectron corresponding to incident light, or in formation of a secondary-electron emitting surface for emitting secondary electrons corresponding to an incident electron. Particularly, the alkali metal generating agent contains at least an oxidizer comprising at least one vanadate with an alkali metal ion as a counter cation, and a reducer for reducing the ion. An alkali metal generating device comprises at least the alkali metal generating agent and a case housing it, and the case is provided with a discharge port for discharging the vapor of the alkali metal.

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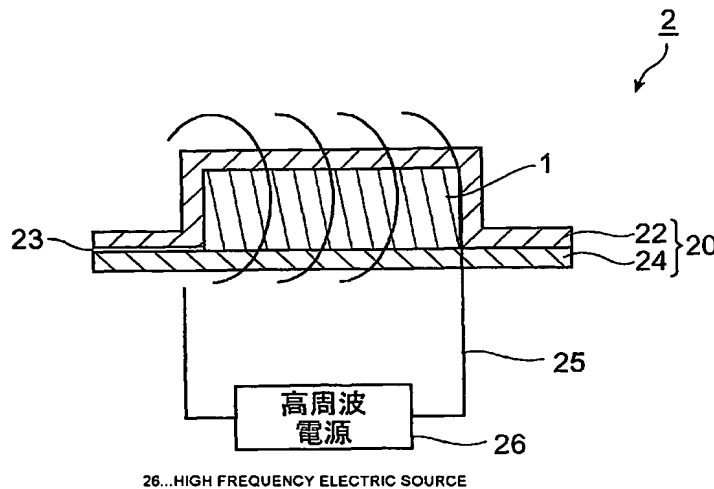
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(54) Title: ALKALI METAL GENERATING AGENT, ALKALI METAL GENERATOR, PHOTOELECTRIC SURFACE, SECONDARY ELECTRON EMISSION SURFACE, ELECTRON TUBE, METHOD FOR MANUFACTURING PHOTOELECTRIC SURFACE, METHOD FOR MANUFACTURING SECONDARY ELECTRON EMISSION SURFACE, AND METHOD FOR MANUFACTURING ELECTRON TUBE

(54) 発明の名称: アルカリ金属発生剤、アルカリ金属発生器、光電面、二次電子放出面、電子管、光電面の製造方法、二次電子放出面の製造方法及び電子管の製造方法



(57) Abstract: An alkali metal generating agent (1) for use in forming a photoelectric surface emitting a photoelectron corresponding to an incident light or a secondary electron emission surface emitting a secondary electron corresponding to an incident electron, which comprises an oxidizing agent comprising at least one vanadate having an alkali metal ion as a counter cation and a reducing agent for reducing the above cation. The above metal generating agent (1), which includes a vanadate having weaker oxidizing power than that of a chromate, undergoes slower oxidation-reduction reaction, which results in easier reaction rate control as compared to a conventional technique using a chromate, leading to the generation of an alkali metal with good stability.

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